

AMENDMENT TO THE CLAIMS

15. (Currently Amended) An image forming apparatus for forming an image in accordance with control codes, said image forming apparatus comprising:

- a printing unit for printing an image;
- a first memory medium for storing the control codes to control said image forming apparatus having said printing unit;
- display means for displaying messages associated with an image forming operation;
- a second memory medium for storing data received from an external apparatus;
- a third memory medium for storing transfer control codes which are adapted to control transfer of rewrite execution codes from the external apparatus, wherein the rewrite execution codes are adapted to execute rewriting of the control codes stored in said first memory medium;
- receiving means for receiving, from the external apparatus, the rewrite execution codes in accordance with the transfer control codes and new control codes; and
- rewrite means for rewriting the control codes, which have been stored in said first memory medium, with the new control codes stored in said second memory medium, in accordance with the rewrite execution codes stored in said second memory medium,

wherein said display means displays a message informing a user of the fact that the image forming apparatus is under either download of data into said second memory

medium or rewrite of the control codes cannot perform image forming by said printing unit during execution of the rewrite execution codes.

16. (Previously Amended) The image forming apparatus according to Claim 15, wherein the rewrite execution codes are transferred to a nonvolatile memory medium as said first memory medium and stored therein.

18. (Previously Amended) The image forming apparatus according to Claim 15, wherein the rewrite execution codes include address information of said first memory medium for executing rewriting of the control codes, and said rewrite means executes the rewriting of the control codes, which have been stored in said first memory medium, in accordance with the address information.

19. (Previously Amended) The image forming apparatus according to Claim 15, further comprising:

image forming control means for controlling an image forming process in accordance with the control codes; and

switching means for exclusively changing over whether the image forming process is executed by said image forming control means or rewrite of the control codes is executed by said rewrite means.

20. (Previously Amended) The image forming apparatus according to Claim 19, wherein said switching means exclusively changes over using a predetermined switch whether the image forming process is executed by said image forming control means or the rewrite of the control codes is executed by said rewrite means.

21. (Previously Amended) The image forming apparatus according to Claim 19, wherein said switching means exclusively changes over in accordance with a predetermined command transmitted from said external apparatus whether the image forming process is executed by said image forming control means or the rewrite of the control codes is executed by said rewrite means.

22. (Currently Amended) A rewrite control method for rewriting control codes, which have been stored in a first memory medium and are adapted to control an image forming apparatus having a printing unit to form an image, said rewrite control method comprising:

a first receiving step of receiving rewrite execution codes, which are adapted to execute rewriting of the control codes stored in the first memory medium, from an external apparatus in accordance with transfer control codes, wherein the transfer control codes are adapted to control transfer of the rewrite execution codes from the external apparatus and have been stored in a third memory medium;

a first storing step of storing the received rewrite execution codes in a second memory medium;

a second receiving step of receiving new control codes from the external apparatus;

a second storing step of storing the received new control codes in the second memory medium;

a rewriting step of rewriting the control codes, which have been stored in the first memory medium, with the new control codes stored in the second memory medium, in accordance with the rewrite execution codes stored in the second memory medium; and

a displaying step of displaying a message informing a user of the fact that the image forming apparatus is under either download of data into the second memory medium or rewrite of the control codes cannot perform image forming by the printing unit during execution of the rewrite execution codes.

23. (Previously Amended) The rewrite control method according to Claim 22, further comprising a transfer step of transferring the rewrite execution codes from the second memory medium to a nonvolatile memory medium as the first memory medium.

25. (Previously Amended) The rewrite control method according to Claim 22, wherein the rewrite execution codes include address information of the first memory medium for executing rewriting of the control codes, and the rewrite of the control codes is executed in accordance with the address information.

26. (Previously Amended) The rewrite control method according to Claim 22, further comprising:

an image forming control step of controlling an image forming process in accordance with the control codes; and

a switching step of exclusively changing over whether the image forming process is executed in said image forming control step or rewrite of the control codes is executed in said rewriting step.

27. (Previously Amended) The rewrite control method according to Claim 26, wherein said switching step exclusively changes over using a predetermined switch whether the image forming process is executed in said image forming control step or the rewrite of the control codes is executed in said rewriting step.

28. (Previously Amended) The rewrite control method according to Claim 26, wherein said switching step exclusively changes over in accordance with a predetermined command transmitted from said external apparatus whether the image forming process is executed in said image forming control step or the rewrite of the control codes is executed in said rewriting step.

29. (Currently Amended) An image forming apparatus for forming an image in accordance with control codes, said image forming apparatus comprising:

a printing unit for printing an image;

a code memory for storing the control codes which are adapted to control the image forming apparatus having said printing unit;

a memory for storing rewrite execution codes from an external apparatus, wherein the rewrite ~~exaction~~ execution codes are adapted to execute rewriting of the control codes; ~~and~~

a processor for controlling the image forming apparatus in accordance with the control codes stored in said code memory,

wherein said processor controls transfer of the rewrite execution codes from the external apparatus in accordance with transfer control codes which are adapted to control transfer of rewrite execution codes from the external apparatus, said processor controls transfer of new control codes from the external apparatus, and said processor controls rewriting the control codes, which have been stored in said code memory, with the new control codes transferred from the external apparatus in accordance with the rewrite execution codes stored in said memory; and

an informing unit for informing a user of the fact that the image forming apparatus cannot perform image forming by said printing unit during execution of the rewrite execution codes.

30. (Previously Added) The image forming apparatus according to Claim 29, wherein said code memory is a rewritable memory.

31. (Previously Amended) The image forming apparatus according to Claim 29, wherein the image forming apparatus is a copying machine or a printer.

32. (Previously Amended) The image forming apparatus according to Claim 29, wherein the rewrite execution codes include address information of said code memory and said processor controls rewriting of the control codes with the new control codes transferred from the external apparatus in accordance with the address information.

33. (Previously Added) The image forming apparatus according to Claim 29, wherein said processor exclusively changes over control of an image forming process and the rewrite of the control codes.

34. (Previously Added) The image forming apparatus according to Claim 29, wherein the control codes and the rewrite execution codes are programs that are executed by said processor.

35. (Currently Amended) A rewrite control method for rewriting control codes, which have been stored in a code memory and are adapted to control an image forming apparatus having a printing unit to form an image, said rewrite control method comprising:

a first control step of controlling transfer of rewrite execution codes, which are adapted to execute rewriting of the control codes, from an external apparatus in

accordance with transfer control codes which are adapted to control transfer of the rewrite execution codes from the external apparatus;

a second control step of controlling transfer of new control codes from the external apparatus; and

a third control step of controlling rewriting the control codes, which have been stored in the code memory, with the new control codes transferred from the external apparatus in accordance with the rewrite execution codes transferred from the external apparatus; and

an informing step of informing a user of the fact that the image forming apparatus cannot perform image forming by the printing unit during execution of the rewrite execution codes.

36. (New) An image forming apparatus for forming an image in accordance with control codes, said image forming apparatus comprising:

a printing unit for printing an image;

a code memory for storing the control codes which are adapted to control the image forming apparatus having said printing unit;

a processor for controlling the image forming apparatus in accordance with the control codes stored in said code memory, wherein said processor controls transfer of rewrite execution codes from an external apparatus, said processor controls transfer of new control codes from the external apparatus, and said processor controls rewriting the control codes, which have been stored in said code memory, with the new control codes transferred



from the external apparatus in accordance with the rewrite execution codes transferred from the external apparatus; and

an informing unit for informing a user of the fact that the image forming apparatus cannot perform image forming by said printing unit during execution of the rewrite execution codes.

37. (New) The image forming apparatus according to Claim 36, further comprising:

a memory for storing transfer control codes which are adapted to control transfer of the rewrite execution codes from the external apparatus,

wherein said processor controls transfer of the rewrite execution codes from the external apparatus in accordance with the transfer control codes.


38. (New) A rewrite control method for rewriting control codes, which have been stored in a code memory and are adapted to control an image forming apparatus having a printing unit to form an image, said rewrite control method comprising:

a first control step of controlling transfer of rewrite execution codes, which are adapted to execute rewriting of the control codes, from an external apparatus;

a second control step of controlling transfer of new control codes from the external apparatus;

a third control step of controlling the rewriting of the control codes, which have been stored in the code memory, with the new control codes transferred from the

external apparatus in accordance with the rewrite execution codes transferred from the external apparatus; and

 an informing step of informing a user of the fact that the image forming apparatus cannot perform image forming by the printing unit during execution of the rewrite execution codes.

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